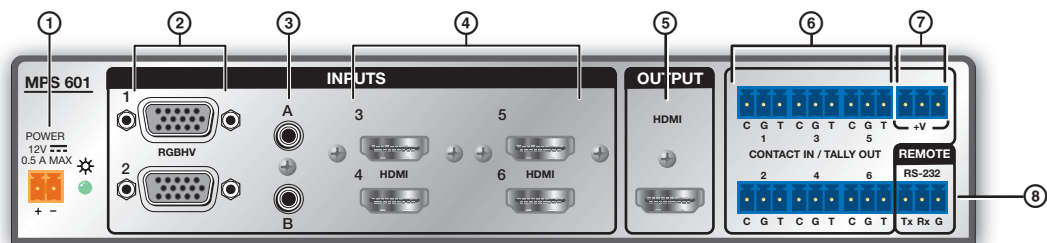# Extron® Electronics
INTERFACING, SWITCHING AND CONTROL

MPS 601 Series • Setup Guide

This guide provides basic instructions for an experienced technician to install, set up, and operate the Extron Media Presentation Switcher, MPS 601. Installation and service must be performed by authorized personnel only. For additional information and specifications, see the MPS 601 product page at **www.extron.com**.

Step 1 — Mount the MPS 601

The MPS 601 is housed in a half rack width, 6 inch deep, 1U high metal enclosure that can sit on a table with the provided rubber feet or can be rack mounted. Select a suitable mounting location, then choose an appropriate mounting option.

Step 2 — Cable the Switcher

Figure 1. MPS 601 Rear Panel

Power and Input Connections	Output Connection	Control Connections
① DC power connector — Connect the provided 12 VDC power supply. ② Two analog 15-pin HD (RGBHV) connectors (numbered 1 and 2). ③ Two female 3.5 mm TRS connectors (letter A and B on the rear panel) corresponding to the two RGBHV video inputs. ④ Four HDMI connectors for HDMI compliant audio and video input (numbered 3, 4, 5 and 6).	⑤ **HDMI video output** — One female HDMI connector	⑥ **Contact In/Tally Out** —Six 3.5 mm, 3-pole captive screw connectors for input switching and tally indication using Extron Show Me cables. ⑦ **+V Port** — 3-pole 3.5 mm captive screw connector for +V output. ⑧ **Remote** — 3-pole, 3.5 mm captive screw RS-232 connector.

Connect Inputs

1. **RGBHV video inputs** — Connect analog video sources to the HD connectors (see figure 1, ②). The connectors accept VGA signals.

   > **NOTE:** The MPS 601 digitizes the RGBHV inputs. It does not scale or convert video to a different resolution. The output signal resolution is the same as the input resolution.

2. **Analog audio inputs** — By default, audio input A is tied to RGBHV input 1 and audio input B is tied to RGBHV input 2 (see figure 1, ③). Analog audio is digitized for HDMI output.

3. **HDMI video inputs** — Connect digital HDMI sources to these inputs using standard HDMI cables (see figure 1, ④).

Connect Output

HDMI video output — Connect an HDMI display device using a standard HDMI cable (see figure 1, ⑤).

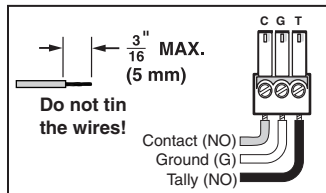# MPS 601 • Setup Guide (Continued)

Connect Control Devices

> **NOTE:** Do not tin the leads. Tinned wires are not as secure in the connector and could be pulled out.

1. **Contact In/Tally Out** —When a connected contact is grounded, the corresponding input is selected (see figure 1, ⑥). At the same time, the tally output closes causing the Show Me cable LED indicator to light.
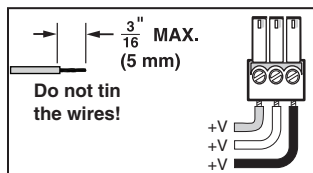
   > **NOTE:**
   > - For "Show Me" cables, the ground pin is optional.
   > - Do not connect "Show Me" cables to the +V pin of the +V Port (see below).

   The six contacts are mutually exclusive so that only one input can be selected at at time.

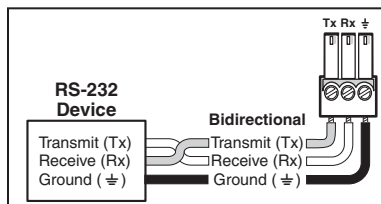   **Figure 2.** **Contact In and Tally Out Connector Wiring**

   - **Contact (C)** – Momentary closure of this pin to ground selects the corresponding number input. Selection is triggered at the closure (grounding) of the pin, not the opening.
   - **Ground (G)** – Ground pin.
   - **Tally output (C)** – Controls the LEDs on the contact closure push button. When an input is selected, the tally LED for that input is active.

3. **+V Port** — All three pins constantly output +5 VDC, 200 mA total (shared between pins). The +V pins can provide power to illuminate external tally LEDs (see figure 1, ⑦).

   Figure 3. **+V Connector Wiring**

4. **Remote RS-232** — Serial port for connection of a host computer or controller using Simple Instruction Set (SIS™) or Windows-based control software commands (see figure 1, ⑧). The default protocol is 9600 baud, 8 data bits, 1 stop bit, and no parity.

   An IP Link® driver allows Extron IPL and MediaLink® devices to control the MPS 601 from the RS-232 remote connector.

   Figure 4. **RS-232 Connector Wiring**

2

Connect Power

Connect the provided 12 VDC power supply to the rear panel captive screw connector (see figure 1, ①). and plug the AC power cord into 100-240 VAC, at 50-60 Hz.
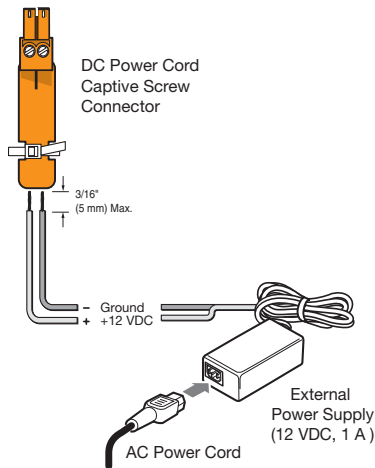
DC Power Cord Captive Screw Connector

3/16" (5 mm) Max.

Ground
+12 VDC

External Power Supply (12 VDC, 1 A)

AC Power Cord

Figure 5. Power Supply Wiring

> **ATTENTION:**
> - Always use a power supply provided by or specified by Extron. Use of an unauthorized power supply voids all regulatory compliance certification and may cause damage to the supply and the end product.
> - Unless otherwise stated, the AC/DC adapters are not suitable for use in air handling spaces or in wall cavities. The power supply is to be located within the same vicinity as the Extron AV processing equipment in an ordinary location, Pollution Degree 2, secured to the equipment rack within the dedicated closet, podium, or desk.
> - The installation must always be in accordance with the applicable provisions of National Electrical Code ANSI/NFPA 70, article 75 and the Canadian Electrical Code part 1, section 16. The power supply shall not be permanently fixed to building structure or similar structure.

Configuring the MPS 601

The MPS 601 can be configured using a connected PC and the Extron Product Configuration Software or using SIS commands. To configure the MPS 601 using the Product Configuration Software, install the software (available on the Extron website, **www.extron.com**) on a PC connected to the MPS 601 by the rear panel remote (RS-232) port (see figure 1, ⑧), or front panel USB Config port (see figure 6, ②). After the installation, start the program. See the *MPS 601 User Guide* and the *Product Configuration Software Help File* for additional information.

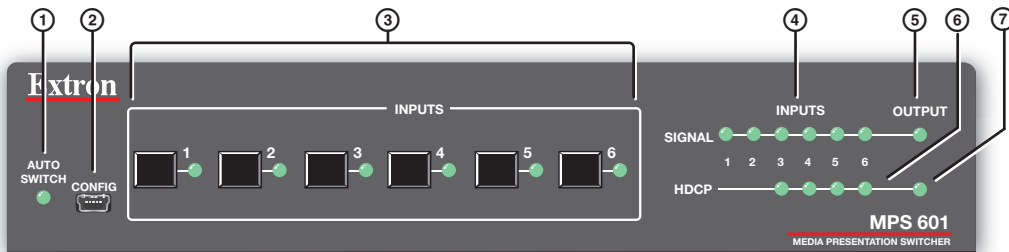To configure the MPS 601 using SIS commands, see the *MPS 601 User Guide*.

Figure 6.   MPS 601 Front Panel

Setup and Operation

① Power on all connected devices, then apply power to the MPS 601. The Auto Switch LED lights when auto-input switching is active.

② One mini type-B female USB Config port connects to a host computer for configuring the switcher and upgrading firmware.

③ Input switching. The input group has six buttons with associated green LEDs. Press an input button to switch the input to the HDMI output. The associated LED lights. Only one of the six inputs can be selected at a time.

④ Input signal LEDs. Six green LEDs indicate:
- The LEDs for RGBHV inputs 1 and 2 light when horizontal sync is detected on the input.
- The LEDs for HDMI inputs 3 to 6 light when TMDS clock activity is detected on the input.

> **NOTE:** If a connected HDMI source is HDCP encrypted, the associated input signal LED does not light until HDCP is authenticated.

⑤ Output signal LED. This LED lights when the HDMI output is connected to a display or sink device.

⑥ HDCP input signal LEDs (inputs 3, 4, 5, and 6). These LEDs light for the associated HDMI input when the connected source is HDCP encrypted.

⑦ HDCP output LED. This LED lights when the currently selected input source requires HDCP and the connected output device (sink) is authenticated.

The MPS 601 can be connected to as many as six input devices. Any of the six inputs (2 RGBHV, 4 HDMI) can be routed to the HDMI output.

> **NOTE:** The MPS 601 does not scale or convert video. However, it does convert an analog RGB/VGA input (see figure 1, ②) to digital for digital output. The output signal resolution is the same as the input resolution.
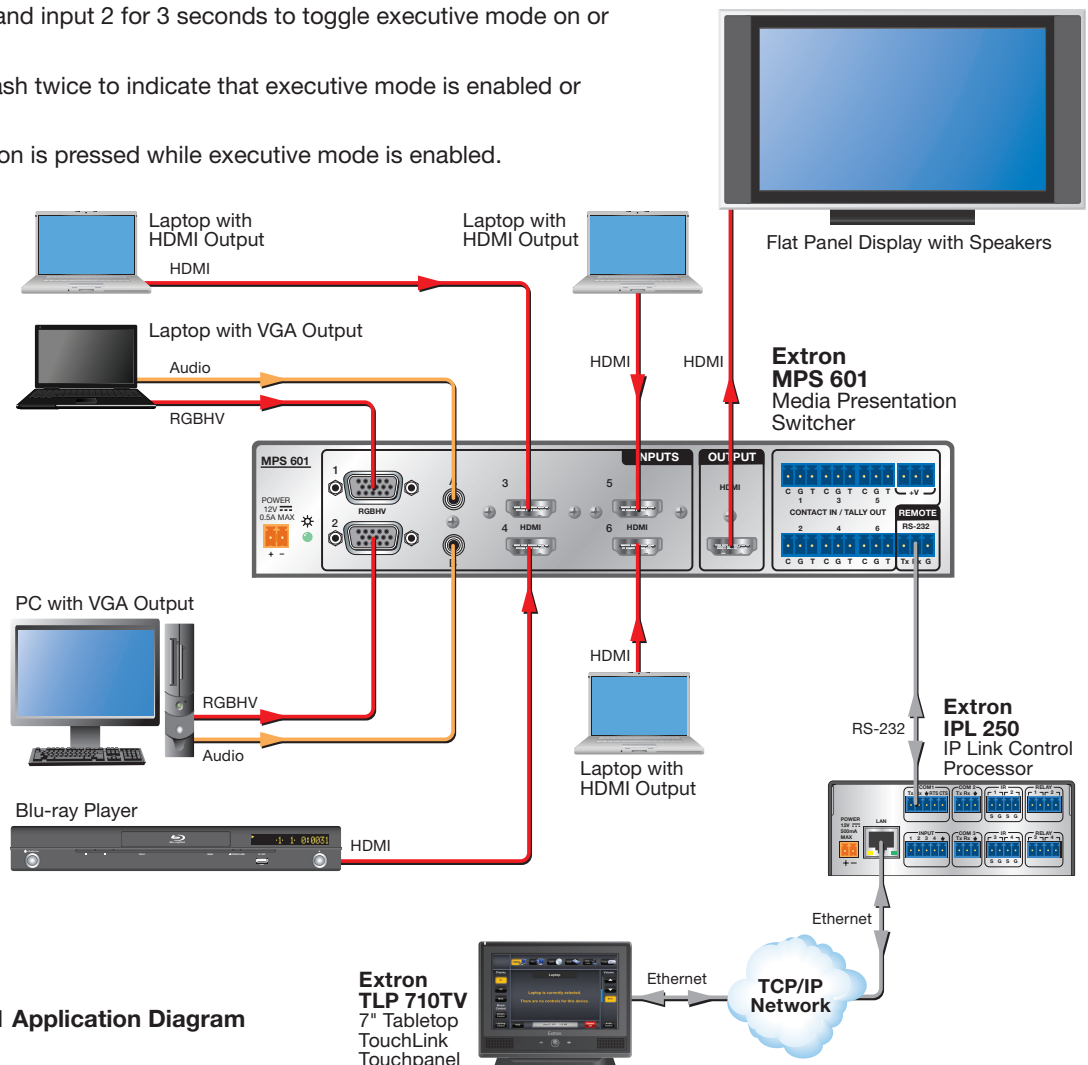
Executive mode

Executive mode, when enabled, provides security from an accidental or unauthorized front panel button press by locking out the input switching buttons.

The RS-232 and USB ports are always accessible regardless of the executive mode state.

To enable or disable executive mode:

- Press and hold input 1 and input 2 for 3 seconds to toggle executive mode on or off.

- The front panel LEDs flash twice to indicate that executive mode is enabled or disabled.

All LEDs flash twice if a button is pressed while executive mode is enabled.

Figure 7. MPS 601 Application Diagram